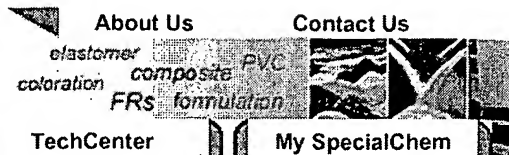




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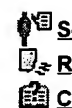
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Polyacetal

Polyacetal is an opaque, very hard, and highly crystalline polymer that offers excellent strength and stiffness in many applications like automotive or sporting goods.

Stabilization of Polyacetal

Polyacetals are prone to degradation at high processing temperatures. Due to this behavior the polymer needs a very effective processing stabilization package. Antioxidants such as [Ciba IRGANOX 245](#) and [Ciba IRGANOX 1098](#) provide excellent processing stability to polyacetal resins. Moreover, [Ciba IRGANOX 245](#) and [Ciba IRGANOX 1098](#) offer excellent long-term thermal stability combined with good resistance to extraction. [Ciba IRGANOX 245](#) is highly recommended for color critical applications.

Polyacetals are prone to chalking when exposed to UV-light. To protect the polymer from surface degradation and discoloration the use of [Ciba TINUVIN 622](#) or [Ciba TINUVIN 770](#) in combination with [Ciba TINUVIN 234](#) is recommended.

For more information, contact us via [TechDirect](#), or visit our Plastics Additives/Product Search engine by clicking on the Ciba Logo above.

Coloration of Polyacetal

Polyacetal polymers can be very difficult to select colorants for. This is because they rapidly depolymerise at elevated temperatures, and /or are shear sensitive, releasing formaldehyde. De-polymerisation (unzipping of the polymer back bone) is accelerated by acidic substances, moisture, and also by some metal containing colorants. Therefore, adequate pre testing can be crucial.

For technical assistance on polyacetal coloration, please use [TechDirect](#).

A large number of organic pigments are available and these are the preferred route for coloration rather than polymer soluble colorants or inorganic color pigments. Due to the highly crystalline nature of this group of polymers, very often, high levels of pigment are required to achieve deep shades. Moreover, the physical and chemical properties of the polymer may be compromised. Thus, high strength organic pigments dominate the coloration of Polyacetals. Care must be taken when selecting colorants for POM, due to the aforementioned reasons and the fact that these polymers are non acid resistant.

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